



PATENT  
Atty. Docket: 1400-35 (1568)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jeffrey J. Terlizzi et al.

Examiner: DIANE I. LEE

Serial No. : 10/650,182

Group Art Unit: 2876

Filed : August 28, 2003

For : **MULTI-INTERFACE DATA ACQUISITION  
SYSTEM AND METHOD THEREOF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA. 22313-1450

**DECLARATION UNDER CFR 37 §1.131**

Madam:

I, Rizwan Ahmad Alladin, Tong-Hsiao Chang, John Joseph Fioriglio, Peter Musteric and Robert W. DiGiovanna, declare and say that:

I contributed to the subject matter of each document for which I am designated as a contributor submitted as attached Exhibits C-UU.

The attached Exhibits C-UU illustrate a continuum of work showing due diligence in the design of a multi-interface controller having the elements claimed in Applicants' patent application entitled, "MULTI-INTERFACE DATA ACQUISITION SYSTEM AND METHOD THEREOF", filed on August 28, 2003 and having Serial No.10/650,182.

Dates, explanations, designated contributors, locations of files, and filenames for Exhibits C – UU follow:

**EXHIBITS C-D are located in the "PSC NEG" Folder of the "Docs from Pete Musteric" folder stored on the provided CD. The file properties for each property show the date that each file was last modified by engineers who worked on the project. The creation date for each file is the date that Applicant created the CD for submission to the Examiner.**

**EXHIBIT C**Filename: New Approach

(last modified 9-15-00)

Contributor: Tong Chang

Overall general description of background, proposed design, programming interface, benefits of the design, and anticipated obstacles. Includes a block diagram of an multi-interface controller ASIC.

**EXHIBIT D**Filename: Schedule Estimate for ...

(last modified 06-13-01)

Contributor: Peter Musteric

Discusses scheduling of tasks, associated with the development of a multi-interface scanner, including their estimated duration, and risks associated with developing a Multi Interface ASIC (MIA) based scanner to be used as a replacement for PSC Scanning Inc.'s Powerscan™ scanner.

**Exhibits E-M are located in the "MULTIINTERFACE ASIC" Folder of the "Docs from Pete Musteric" folder stored on the provided CD. The file properties for each property show the date that each file was last modified by engineers who worked on the project. The creation date for each file is the date that Applicant created the CD for submission to the Examiner.**

**EXHIBIT E**Filename: Asic\_spec\_6.pdf

(last modified 4-9-01)

Contributors: Tong Chang, Rizwan Alladin, John Fioriglio

Provides a detailed specification of the Multi Interface ASIC, including a block diagram. This document was provided to UTMC (the ASIC supplier) to use for the April 2001 design review of the MIA.

**EXHIBIT F**Filename: Interim Design Review Minutes.doc

(last modified 4-19-01)

Contributors: Peter Musteric and Tong Chang

Shows due diligence in scheduling and preparing to market product with multi-interface. Includes minutes and action items from design review meeting held prior to fabrication of ASIC. These minutes were captured by UTMC associates. Tong Chang and Peter Musteric represented Symbol at this review.

**EXHIBIT G**Filename: MIA Overview.ppt(last modified 3-20-01)Contributor: Peter Musteric

Describes and shows design and objectives of the MIA project. This document provides an overview of the project and some details regarding the design approach. Also included in this was the conceptual approach of loading only the code necessary for the specific interface into the ASIC "book from the library" and describes the software architecture as well.

**EXHIBIT H**Filename: MIA Program Review [Date].docDates are in documentsLocated in "MIA Program Review" folderContributor: Peter Musteric

MIA Program Review (Dates of review are shown. Dates of last modification are substantially the same as the dates shown) Shows due diligence in design and manufacture of multiinterface ASIC. Details program progress and delays.

**EXHIBIT I**Filename: MIA D3.doc(last modified 3-13-01)Contributors: Tong Chang, Peter Musteric, John Fioriglio, Rizwan Alladin

Discusses interface between the Multi Interface ASIC and the scanner subsystem, particularly low level communication functionality (transport) and flash programming of the MIA.

**EXHIBIT J**Filename: MIA SPECf1.doc(last modified 5-15-01)Contributors: Tong Chang, Peter Musteric, Rizwan Alladin

Discusses interface between the Multi Interface ASIC and the scanner subsystem, particularly low level communication functionality (transport) and flash programming of the MIA.

**EXHIBIT K**Filename: Schedule Outlook.doc(last modified 3-19-01)Contributor: Peter Musteric

Shows scheduled tasks for Multi Interface ASIC project. Provides status of what had been done and what tasks remained.

**EXHIBIT L**

Filename: Signal\_name cross-reference.doc (last modified 4-19-01)  
Contributor: Tong Chang

Cross reference list of signal names for the multi-interface. Details the netlist (ASIC schematic) and corresponding signal call-out in the specification.

**EXHIBIT M**

Filename: PSC MIA OVERVIEW.ppt (last modified 3-20-01)  
Contributor: Peter Musteric

Describes and shows design and objectives of the MIA project. This was a modified version of Exhibit G for PSC Scanning Inc. discussing the design and specific customizations/support considerations for PSC Scanning Inc.

**Exhibits N-BB are stored in the MIA.zip folder, which is in the folder labeled “Docs From J Fioriglio” stored on the provided CD, and are associated with an ASIC implementation of the Multi Interface. Exhibits N-Y and BB are located in the MIA.zip file. The file properties indicate the dates that the files were created/modifed.**

**EXHIBIT N**

Filename: cross ref.xls 04-19-02  
Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

I/O TABLE - Table with hook-up signals to run in emulation mode from external processor.

**EXHIBIT O**

Filename: EXTRA\_INT.xls 10-11-01  
Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

LABEL TABLE - Table of simulation results for timing of ASIC used in this implementation.

**EXHIBIT P**

Filename: hand-off 04-03-01  
Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

Specification from ASIC manufacturer. Test document.

**EXHIBIT Q**Filename: interrupt.doc02-26-01Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

Interrupt scheme for ASIC.

**EXHIBIT R**Filename: mifasic.ppt06-19-00Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

VENDOR SELECTION - Details vendor selection process.

**EXHIBIT S**Filename: mmap\_mia5-01-01Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

DECODER MEMORY MAP - Mapping of decoder memory.

**EXHIBIT T**Filename: mmap\_mia.xls11-20-01Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

DECODER MEMORY MAP - Mapping of decoder memory.

**EXHIBIT U**Filename: mmap\_mia2.xls4-12-02Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

DECODER MEMORY MAP - Mapping of decoder memory.

**EXHIBIT V**Filename: mult\_intf.xls10-11-00Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

COMPARISON BETWEEN VENDOR QUOTES - Comparison between Alcatel's and UTMC's (bidding vendors) quote for the Multi-Interface ASIC.

**EXHIBIT W**Filename: RTS\_CTS.xls03-21-01Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

HANDSHAKES MIA/DECODER - Mechanics of handshakes between the ASIC of the MIA and the decoder.

**EXHIBIT X**Filename: Supplier.xls10-11-00Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

SUPPLIERS TABLE - Checklist set up by procurement division for each vendor making quote for building the ASIC.

**EXHIBIT Y**Filename: Write\_fix.doc08-01-01Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

WRITE CHANGE FOR MIA ASIC - Write change for MIA ASIC in Write\_reg block.

**EXHIBIT Z**Filename: MIA6/00-4/02Contributors: John Fioriglio

Snap shot of files in MIA directory as stored on computer of inventor, John Fioriglio.

**EXHIBIT AA**Filename: Mia directory10/00-12/02Contributor: John Fioriglio

Snap shot of files in MIA\_directory directory as stored on computer of inventor, John Fioriglio.

**EXHIBIT BB**Filename: multi hook up ya05.xls04-12-02Contributors: John Fioriglio, Tong Chang, Alladin Rizwan

Drives from viewpoint of Multiwrap Application.

**EXHIBITS CC-OO are provided in the folder labeled "Docs from Sarah Enzenbacher". The dates associated with the document are included in the text of the document.**

**EXHIBIT CC**Filename: 17-56351-01.pdf10-08-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT DD**Filename: 17-56351-01r2.pdf04-23-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT EE**Filename: 17-56351-01r3.pdf04-25-02Contributor: Robert Giovannab

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT FF**Filename: 17-56351-01r4.pdf05-15-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT GG**Filename: 17-56351-01ra.pdf05-24-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT HH**Filename: 17-56351-01 1 1 2.tif03-28-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT II**Filename: 17-56351-01 1 2 2.tif03-28-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Hotshot model of a scanner device.

**EXHIBIT JJ**Filename: 17-57461-01r3.pdf06-26-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBIT KK**Filename: 17-57461-01r4.pdf07-17-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBIT LL**Filename: 17-57461-01r5.pdf08-08-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBIT MM**Filename: 17-57461-01r6.pdf08-15-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBIT NN**Filename: 17-57461-01r7.pdf09-03-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBIT OO**Filename: 17-57461-01ra.pdf09-10-02Contributor: Robert Giovanna

Schematic of a discrete component implementation of multi-interface in the Evolution model of a scanner device.

**EXHIBITS PP – UU are provided in the folder labeled “Docs from Tony Chang”.  
The dates associated with the document are included in the text of the document.**

**EXHIBIT PP**

Filename: concept review comment.doc 09-14-00  
Contributor: Tong Chang

Schematic with suggestion for Olympus' (vendor) design on LTIII and Spark II projects.

**EXHIBIT QQ**

Filename: meeting handouts for cable detection.doc 10-17-00  
Contributor: Tong Chang

Handouts for Olympus' auto cable detection meeting with Symbol.

**EXHIBIT RR**

Filename: meeting minutes.doc 10-17-00  
Contributor: Tong Chang

Minutes from Olympus meeting with Symbol for automatic cable detection.

**EXHIBIT SS**

Filename: NONDEC.pdf 12-12-00 – 01-09-01  
Contributor: Tong Chang

Schematic of a discrete component implementation of a multi-interface scanner device (project name LT3/SP2).

**EXHIBIT TT**

Filename: RS232C.pdf 08-31-00 – 01-06-01  
Contributor: Tong Chang

Schematic of a discrete component implementation of a multi-interface scanner device (project name LT3/SP2).

**EXHIBIT UU**

Filename: SCAN.pdf 11-17-00 – 01-09-01  
Contributor: Tong Chang

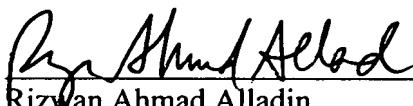
Schematic of a discrete component implementation of a multi-interface scanner device (project name LT3/SP2).

The Exhibits C- UU, together with Exhibits A and B, which were submitted on May 19, 2006, show due diligence from the date December 3, 1999 (the date associated with Exhibit A) through the present application's filing date of August 28, 2003. Accordingly, Exhibits A-UU antedate the priority date of U.S. Patent No. 6,705,527 by Kelly et al., filed on June 1, 2001 and claiming the priority date June 1, 2000, and cited as a prior art reference by the Examiner in the Office Action of December 19, 2005.

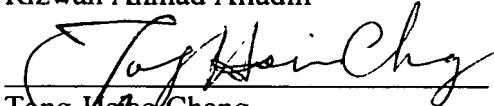
The attached Exhibits C - UU demonstrate that Applicants appreciated the inventive concept before the priority date June 1, 2000 of Patent No. 6,705,527.

That the undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

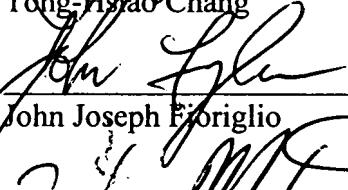
Respectfully Submitted,

  
Rizwan Ahmad Alladin

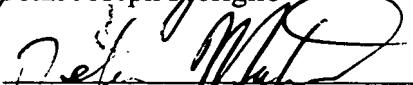
Dated: 10-9-07

  
Tong-Hsiao Chang

Dated: 10-9-07

  
John Joseph Fioriglio

Dated: 10-9-07

  
Peter Musteric

Dated: 10/9/07

  
Robert W. DiGiovanna

Dated: 10/9/07

GL/JRN:mg